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RESPONSE TO COMMENTS and FINAL AMENDMENTS TO

CLEAN AIR ACT SECTION 111(d)/129 STATE PLAN, INCLUDING
MUNICIPAL WASTE COMBUSTOR REGULATION 310 CMR 7.08(2)

and

CLEAN AIR ACT SECTION 110 OZONE STATE IMPLEMENTATION PLAN, INCLUDING
MUNICIPAL WASTE COMBUSTOR REGULATION 310 CMR 7.08(2);
NO_x REASONABLY AVAILABLE CONTROL TECHNOLOGY REGULATION 310 CMR 7.19;
DELETION OF 310 CMR 7.27, 7.28 AND 7.50;
AND ASSOCIATED CHANGES TO 310 CMR 7.00: APPENDIX B

March 9, 2018

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

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I. Regulation History

On July 1, 2013, the Massachusetts Department of Environmental Protection (MassDEP) proposed amendments to the Municipal Waste Combustor (MWC) Rule, 310 CMR 7.08(2), for large MWCs and the NOx Reasonably Available Control Technology (RACT) rule, 310 CMR 7.19, for small MWCs. On March 31, 2015, Governor Baker issued Executive Order 562 commissioning a complete and comprehensive review of all existing Executive Branch regulations. As determined through the Executive Order 562 process (see <http://www.mass.gov/governor/legislationexecorder/execorders/executive-order-no-562.html>), MassDEP is finalizing these regulations because they implement federal minimum requirements and also eliminate unnecessary regulations and increase flexibility for regulated parties.

The purposes of the proposed amendments were as follows:

- As required under the federal Clean Air Act (CAA), make the state MWC Rule as stringent as the most current federal Emission Guidelines (EGs) for MWCs, 40 CFR Part 60 Subpart Cb, which were amended in 2006, by:
 1. establishing more stringent emission limits for particulate matter, cadmium, lead, and dioxin/furan;
 2. allowing owners of MWCs more options for monitoring emissions; and
 3. creating new requirements for operating MWCs.
- In order to maintain attainment of the National Ambient Air Quality Standards (NAAQS) for ozone and to help reduce NOx emissions, lower the existing NOx emission limits to 150 ppm for Mass Burn Waterwall MWCs, 146 ppm for Refuse-Derived Fuel Stoker MWCs, and 125 ppm for Mass Burn Refractory MWCs.
- To satisfy EPA's requirement that MassDEP have a NAAQS definition in our regulations.
- To streamline and remove unneeded regulations, delete sections of the air regulations that have expired.

II. Public Comment Process

MassDEP held one public hearing and solicited oral and written comments on the proposed amendments in accordance with M.G.L. Chapter 30A. On May 30, 2013, MassDEP published in two newspapers, the Boston Globe and the Springfield Republican, notice of the public hearing and public comment period on the proposed amendments, and notified interested parties via electronic mail. The public hearing notice was published in the Massachusetts Register on June 7, 2013. The public hearing was held at MassDEP's Boston office on Monday, July 1, 2013. The public comment period closed on July 11, 2013. Covanta Energy Corporation, Wheelabrator Technologies, Inc., and the United States Environmental Protection Agency (US EPA) submitted comments.

III. Comments and Responses

A. Covanta Comments

Comment: Covanta believes that 150 parts per million of nitrogen oxides on a volumetric dry-basis at 7% oxygen (ppmvd NOx@7% O₂, hereafter expressed as “ppm”) is a potentially achievable emission limit for the two MWC units at the Haverhill facility. Both MWC units have been modified with the Covanta “Low NOx” (LNTM) system). Early use of LNTM before 2011 resulted in accelerated refractory damage on the furnace walls due to the higher temperatures in certain sections of the combustion zone. Covanta continues to evaluate the use of LNTM in conjunction with selective non-catalytic reduction (SNCR) to improve the emissions long-term, with the goal of achieving 150 ppm. If this evaluation demonstrates that 150 ppm is economically infeasible, an appropriate source-specific limitation will be proposed.

Response: MassDEP concurs with the comment. If the facility believes the cost is prohibitive, then Covanta can apply for approval of a source-specific alternative NOx emissions limit in accordance with the regulation as originally proposed. Therefore, MassDEP is finalizing the 150 ppm NOx limit for mass burn waterwall MWCs, and finalizing the option for applying for an alternative NOx limit, as proposed.

Comment: Covanta believes that a limit of 150 ppm for SEMASS (Rochester) would be more appropriate than the proposed 146 ppm because it would make the regulation more consistent (i.e., 150 ppm for all waterwall MWCs). There does not appear to be a requirement to establish a limit based on one other refuse derived-fuel (RDF)-fired combustor in Connecticut (which is a different design and not directly comparable). That said, 146 ppm is achievable with SNCR and LNTM. Due to the differences in fuel feeding of SEMASS compared to Haverhill, we do not expect the refractory damage problem experienced at Haverhill to occur at SEMASS.

Response: EPA has established mass burn waterwall and refuse-derived fuel MWCs as separate MWC technology categories in federal regulations. Therefore, it is more appropriate to establish a NOx RACT limit for SEMASS’ RDF MWCs based on other RDF MWCs, than on mass burn waterwall MWCs. MassDEP expects that all 3 units at SEMASS can achieve 146 ppm with LNTM and SNCR controls. Therefore, MassDEP is finalizing the 146 ppm NOx limit for RDF MWCs as proposed. As noted above, if the facility believes that this is economically infeasible, then Covanta can apply for approval of a source-specific alternative NOx emissions limit in accordance with the regulation.

Comment: The proposed NOx limit of 125 ppm on a 24-hour block average for Agawam and Pittsfield is not consistently achievable on a daily basis, due to the lack of a specific NOx control system other than the basic MWC design and combustion air controls. Covanta requests that NOx RACT for Agawam and Pittsfield remain at the 167 and 192 ppm NOx limits in their existing approvals, respectively. As an alternative for Pittsfield, the standard could be made equivalent to the Connecticut standard of 177 ppm for mass burn refractory MWCs. Establishing the limit at 177 ppm would be consistent with MassDEP’s position regarding the 146 ppm limit for RDF MWCs applicable to SEMASS. The Pittsfield facility has not exceeded 177 ppm since January 2012. However it did come close during 2 days in February 2013. If the limit is established as 177 ppm, Covanta may submit a proposal for a source-specific NOx limit in accordance with 310 CMR 7.19(2)(b).

Response: MassDEP acknowledges that while the Pittsfield and Agawam facilities operate at a long-term NOx level around the 125 ppm NOx limit proposed by MassDEP, they do not have controls that would allow the facilities to achieve 125 ppm NOx on a daily basis, which is the averaging time typically

required of NO_x RACT emission limits. As detailed in the Technical Support Document that accompanied the regulatory proposal, MassDEP does not consider selective catalytic reduction (SCR) or SNCR to be RACT for these facilities as these technologies are not economically feasible for small mass burn refractory MWCs such as Agawam and Pittsfield, since a spray dryer at Pittsfield and low temperatures at Agawam would require reheating of exhaust gases for these specific control technologies to operate effectively and efficiently. MassDEP considers flue gas recirculation and air combustion controls RACT for these facilities. Therefore, in response to the comment, MassDEP is including a NO_x RACT limit of 167 ppm for Massachusetts' small MWCs at Agawam and Pittsfield in the final regulation.

Standards for NO_x RACT

Comment: It is possible that Covanta will be submitting proposals for source specific NO_x RACT limits for some of its facilities, especially if MassDEP does not accept our comments to modify the proposed NO_x limits in the proposed regulation. We request that MassDEP offer guidance on the economic thresholds applicable in this determination. Specifically, we recommend a threshold "dollar per tons of NO_x removed" similar to that presented in Table 3, be provided.

Response: MassDEP does not as a normal course of practice issue guidance on the thresholds (in dollar per ton of NO_x removed) for RACT. MassDEP reviews the technologies and economic impacts of proposed control strategies as part of a source-specific RACT determination. MassDEP evaluates the appropriate control technology level that may be economically infeasible in accordance with EPA's RACT guidance. In a RACT review, all applicable control technologies should be addressed, and if technical infeasibilities exist such as physical space limitations, then that control technology is eliminated. Then capital cost estimates are examined to determine whether a control technology's cost is reasonable in relation to other control technologies.

Revision of 310 CMR 7.08(2)(h)3.

Comment: The proposal would modify this section of recordkeeping as follows:

"3. Identification of the calendar dates when any of the average emissions-concentrations, **opacity levels, or** percent reductions, or operating parameters recorded under 310 CMR 7.08(2)(h)2., exceed the applicable limits, with detailed specific reasons for such exceedances and a description of corrective actions taken."

The emission standard for SO_x includes either a maximum stack concentration or minimum percent reduction. The removal of the word "or" after "emission concentrations" may be interpreted, for the purposes of recordkeeping, as the percent reduction option not being applicable. A facility would then need to develop a detailed description of those times when the percent reduction option was used, even though it was in compliance with its permit and the regulations. Covanta suggests instead that the term "opacity levels" be moved and word "or" restored as follows:

"3. Identification of the calendar dates when any of the average emission concentrations or percent reductions, opacity, or operating parameters..."

Response: MassDEP agrees with the commenter and has amended the language so that it reads as suggested.

Ammonia Slip

Comment: MassDEP requested comments on the options available for establishing an ammonia limit for facilities that use SNCR. Covanta suggests that a presumptive limit of 20 ppmvd @7% O₂ be established, with an option for a facility to propose and conduct ammonia optimization testing pursuant to proposed 310 CMR 7.08(2)(f)4. if it is believed that such a limit cannot be consistently achieved. As stated in the

background document, some MWCs currently have ammonia limits of 10 ppm in conjunction with a NOx limit of 205 ppm. Achieving a NOx limit of 150 ppm may result in higher ammonia slip.

Response: It is recommended that facilities to work with their MassDEP regional office to conduct optimization testing so that a reasonable unit-specific ammonia limit can be developed. Since the NOx limits finalized in this package are lower than the previous limits, ammonia injection rates will be altered to lower NOx to meet this more stringent number. However, Covanta has a Low NOx patented technology that has been identified to reduce NOx as well. Combining the two NOx reduction technologies should allow for less ammonia/urea injection so that ammonia slip can be minimized. Therefore, MassDEP is not finalizing a presumptive ammonia limit and is instead requiring optimization testing to determine a technically-appropriate ammonia emission limit for each MWC.

Comment: In addition, we recommend clarification in the regulation as to how compliance with the slip limit would be demonstrated. The most common method is currently discrete stack testing runs during normal 9-month stack testing using a test method such as CTM27 or Modified EPA Method 26 (or other method approved by MassDEP), taking the average of at least 3 test runs. This is acceptable and should be clarified. In addition, Covanta believes that continuous monitoring methods should be offered as an alternative, such as EPA Method 320 (FTIR) or other MassDEP approved method. If a continuous option is selected, the averaging time of the ammonia limit should be a 24 hour block to coincide with the limit for NOx. Standards for data availability under this option should be similar to that for other continuously-monitored parameters and should be included in the regulation.

Response: The appropriate averaging time for a unit's ammonia limit should be established based on the compliance monitoring approach. Either stack testing (using CTM27 or Method 26 or other method approved by MassDEP) or continuous emissions monitoring (using differential NOx, FTIR, or other CEMS) is acceptable for determining ongoing compliance. The use of CEMS is beneficial, as it can be used as a process control to determine how much ammonia to inject moment to moment, and could allow for an ammonia limit with an averaging time shorter than 24 hours. The averaging time should be established based on the optimization testing to establish a unit-specific ammonia limit. If an MWC chooses to use an ammonia CEMS, standards for data availability will be the same as for other continuously monitored gaseous pollutants and such amendments are included in the final regulation.

Revision of 310 CMR 7.08(2)(k)2. and 310 CMR 7.19(2)(b)

Comment: These two sections describe the technical review required by a facility that proposes a source-specific NOx emission limit. Section 7.19(2)(b) is already in place for NOx RACT sources other than small MWCs subject to 7.19(9), and 7.08(2)(k)2. is a new section that duplicates the requirements for large MWCs. Some of the listed NOx control technologies are not applicable to MWCs, and should be removed from proposed 7.08(2)(k)2. These are “burners out of service”, “ignition timing retard”, “fuel switching” and “separate circuit after cooling.” Since section 7.19(2)(b) applies to a variety of source types, it would not be practical to remove those technologies from that list. Covanta assumes that if a source-specific limit is proposed for Agawam or Pittsfield that a “not applicable” statement would be sufficient for that analysis.

Response: MassDEP agrees with Covanta and has removed from 310 CMR 7.08(2)(k)2. those NOx control technologies that are not applicable to large MWCs including “burners out of service,” “ignition timing retard,” “fuel switching” and “separate circuit after cooling.” MassDEP also agrees with Covanta that the list in 7.19(2)(b) applies to a variety of source types, and it would not be practical to remove these four technologies from that list. If a source specific limit is proposed for Agawam or Pittsfield, then MassDEP

would expect that a “not applicable” statement for these four technologies with a brief explanation would suffice.

Removal of the NOx Emissions Averaging Plan (current 310 CMR 7.08(2)(f)4.)

Comment: Covanta will likely continue to achieve new NOx limits on each individual MWC as the background document notes, except at the Agawam and Pittsfield facilities (since they have a combined stack). However, we believe that the averaging plan should remain in the regulations to provide for flexibility in case that plan changes due to technical or economic considerations. There would be no negative environmental impact of utilizing this option.

Response: MassDEP agrees, and is retaining the NOx emissions averaging plan option, with updated NOx emissions limits for each technology, as discussed in the Technical Support Document.

Effective Dates, Application Deadlines and Implementation Deadlines for NOx

Comment: The proposal would establish the NOx implementation deadline for large MWCs within one year of MassDEP approval of the Emission Control Plan (ECP) application, but in no case later than two years of rule implementation. Covanta requests that this deadline be modified to set the implementation deadline to two years after rule implementation, regardless of when the ECP application is approved. A facility will probably not commence design or construction of modified or new NOx control equipment without approval of the ECP, especially if a source-specific NOx limit is being proposed. It is also not certain that MassDEP would approve the ECP and/or the proposed source-specific limit. Setting a fixed two-year deadline would allow for changes in the ECP if needed and provide adequate time to adjust to those changes. Covanta makes the same request for small MWCs in case MassDEP does not agree with our recommendation to change the proposed NOx limits for Agawam and Pittsfield. Those plants would then need to submit an ECP application and request for source-specific NOx RACT limit.

Response: MassDEP believes that the provision requiring the NOx limit to be met no later than one year after ECP approval allows sufficient time to modify NOx control equipment, since the necessary equipment will already have been identified in order to submit the ECP application. Therefore, the regulatory deadlines are being finalized as proposed.

Miscellaneous

Comment: Covanta agrees with the proposed deletion of the mercury waiver and with all additions to the regulations that are consistent with the 2006 amendments to the Federal EGs.

Response: MassDEP appreciates the comment and is finalizing these provisions as proposed.

B. Wheelabrator Technologies Comments

Comment: We support many of the proposed amendments including:

- 310 CMR 7.08(2)(f)1.b. that provides an exemption from compliance with combustor load and particulate matter control device operating parameter limits preceding and during mercury testing, as currently provided for dioxin/furan testing, and including the exemption from compliance with average mass carbon feed rate limits during mercury and dioxin/furan testing.
- 310 CMR 7.08(2)(f)6.b., (h)11., (i)1., and (i)1.h. that clarify the Operator Training and Certification procedures and associated recordkeeping, notification and reporting provisions for occasions when control room operators provisionally certified under the American Society of

Mechanical Engineers (ASME) *QRO-1 Standard for the Qualification and Certification of Resource Recovery Facility Operators* process performs duties ordinarily restricted to QRO Certified operators and shift supervisors.

- 310 CMR 7.02(2)(g)1.d. and (h)4.e. and addition of 310 CMR 7.02(2)(g)3.d. that clarify procedures for calculating 8-hour block average carbon or equivalent usage rates where carbon injection is used to comply with dioxin/furan and mercury emission limits.
- 310 CMR 7.08(2)(h) and 310 CMR 7.08(2)(i) that incorporate the recordkeeping and reporting requirements of the USEPA EGs by reference.

Response: MassDEP appreciates the comment and is finalizing these provisions as proposed.

CEM Availability Requirements in 310 CMR 7.08(2)(g)5.

Comment: The proposed amendments delete the current CEM availability requirements on the basis they are made unnecessary due to the more stringent CEM availability requirements in the EGs. This deletion would bury the revised CEM availability requirements within the 40 CFR 60.58b Subpart Eb performance testing requirements making them difficult to find. To provide clear confirmation of CEM availability requirements, we suggest that 310 CMR 7.08(2)(g) Compliance and Performance Testing, 5. Continuous Emissions Monitoring Systems Data requirements not be deleted but be amended as follows: “a. *Continuous Emissions Monitoring Systems (CEMS) which monitor nitrogen oxides, sulfur dioxide, **opacity** and operating practices parameters (e.g., carbon monoxide, unit load and particulate matter control device inlet temperature) shall obtain, at a minimum, valid continuous emissions monitoring system **hourly averages for 90% of the operating hours per calendar quarter and 95% of the operating days per calendar year. At least two data points per hours shall be used to calculate each 1-hour arithmetic average***”. This suggested revision also keeps continuous opacity monitoring systems subject to data availability requirements.

Response: MassDEP did not seek public comment on adding an opacity data availability requirement to 310 CMR 7.08(2), and that change is outside the scope of this rulemaking. However, owners and operators of MWCs should be familiar with all the compliance and performance testing provisions of 40 CFR 60.58b, which have long been incorporated by reference in 310 CMR 7.08(2)(g). MassDEP does not believe selecting a partial subset of provisions from 40 CFR 60.58b to repeat in 310 CMR 7.08(2)(g)5.a. is necessary.

Performance Testing Schedule Flexibility

Comment: The May 2006 EG revisions revised the compliance and performance testing requirements to provide much needed flexibility in the annual performance test schedule. This flexibility allows for a 3 month window on either side of the 12 calendar month period performance test schedule and has helped MWC facilities cope with unplanned outages, stack tester scheduling conflicts and severe weather induced test delays without facing violation of the performance test schedule requirements. This same test schedule flexibility should be incorporated in the 9 month stack test schedule specified in 7.08(2)(g)(6). The suggested language change to 310 CMR 7.08(2)(g)6. Compliance Testing Schedule might be as follows:” ... ***shall conduct compliance testing for all designated pollutants on a 9 month basis (no less than 6 calendar months nor more 12 calendar months following the previous compliance test and must conduct 4 compliance tests in each 3 calendar year period.)***” Such language would also be incorporated into the dioxin testing schedule in 7.08(2)(g)(1)b. This would provide flexibility without reducing the actual number of performance tests.

Response: MassDEP agrees with the commenter that providing flexibility in test scheduling is necessary due to unexpected delays in scheduling with test companies, unplanned outages, and severe weather-induced test delays. MassDEP already considers such issues when working with MWCs to schedule tests, and does not believe a regulatory change is needed. MassDEP will continue to allow flexibility during the compliance test period due to such extreme conditions, while noting that Massachusetts General Laws chapter 21H, section 5(c) requires MWCs to conduct dioxin testing at least once every nine months.

NSPS Subparts E and Db Exemptions for MWCs Subject to EGs

Comment: DEP should adopt the NSPS Subparts E and Db exemptions that were also promulgated with the May 2006 Subpart Eb/Cb or EG revisions to eliminate the old Subpart E/Db monitoring and recordkeeping requirements and replaced them with EG operating practices and monitoring, recordkeeping and reporting requirements. These NSPS exemptions most likely could be added to applicability section of 7.08(2)(e). The NSPS exemptions are: 1) Subpart Db applicability: 60.40b -Any facility covered by an EPA approved section 111/129 plan implementing Subpart Cb or subpart BBBB of this Part (40 CFR 60) is not covered by this Subpart (Db), and 2) Subpart E applicability: 60.50(d) -Any facility covered by an EPA approved section 111/129 plan implementing Subpart Cb or subpart BBBB of this Part (40 CFR 60) is not covered by this Subpart (E). Once the exemptions are adopted and the revised MA MWC State Plan approved by EPA, the Title V operating permits can be amended accordingly as will be done anyways to incorporate the final 7.08(2) amendments including the revised emission limits.

Response: MassDEP does not agree that the regulation should include a list of NSPS Subpart E and Db exemptions. If any MWC's Title V Operating Permit incorrectly lists obsolete NSPS regulations as applicable requirements, the facility owner should apply to revise the Operating Permit during the next Operating Permit renewal (or sooner if a facility applies for a modification prior to the next required renewal). It would not be appropriate to create a list in 310 CMR 7.08(2) of all regulations that facilities are not subject to.

Proposed Amendments to MWC NO_x RACT Requirements

Comment: We concur that the basis for the revised NO_x RACT limit should be enhancement/optimization of existing SNCR systems as NJDEP concluded when they established the 150 ppm RACT limit for mass burn waterwall MWCs in 2009.

Response: MassDEP agrees with the commenter and is finalizing the limit as proposed.

Alternative NO_x RACT Limit

Comment: As DEP alludes to in the technical support document, DEP is aware that the Saugus MWC facility has site specific conditions (older short furnace/tail end type boilers) that already make achieving the proposed 150 ppm limit technologically and economically infeasible. Further, the facility is already subject to a 185 ppm/30 day rolling average NO_x limit based on optimization of the existing SNCR NO_x control system for implementation of Best Available Retrofit Technology (BART) NO_x controls under the Massachusetts regional haze attainment SIP. Consequently, Saugus has already adequately demonstrated it is only technologically feasible to achieve the 185 ppm alternative RACT limit as has been approved by DEP in the modified ECP issued in March 2012. As such the current 185/30 day rolling average BART based limit should be incorporated into the Table 3 NO_x emission limits in 7.08(2)(f)3. and Saugus should be exempt from applying for a source specific alternative NO_x RACT limit in 7.08(2)(k)2. Otherwise, the alternative RACT analysis requirement should be revised to specify that submittal of the NO_x control system optimization test report required for BART implementation meets the alternative

NOx RACT analysis requirement. Both the proposed 150 ppm RACT limit and 185 ppm alternative limit are based on enhancement/optimization of existing SNCR control technology. As such the alternative NOx feasibility evaluation should be limited to enhancements/optimization of existing SNCR systems.

Response: MassDEP has determined that the proposed 150 ppm limit does constitute RACT for mass burn waterwall MWCs, and, therefore, MassDEP is not making the requested change in the NOx RACT standard. However, a facility could choose to apply for an Alternative NOx RACT emission limit by evaluating NOx controls and applying the RACT qualification criteria (i.e., technological and economic feasibility) based on data specific to the design or physical layout of the emission unit. To the extent this has been performed for BART, the demonstration will be simpler. Wheelabrator Saugus submitted an optimization report to MassDEP that assessed different locations for injection of ammonia from the ammonia grid for SNCR NOx control. Wheelabrator Saugus did not, however, discuss all other potentially applicable control technologies (listed in 310 CMR 7.08(2)(k)2.), as would be necessary to support an alternative RACT demonstration. Control strategies such as flue gas recirculation and combustion optimization with parametric sensors are just two of the other control technologies that could be evaluated by Wheelabrator Saugus.

NOx RACT Limit Averaging Time

Comment: We strongly recommend that any NOx RACT limit be based on 30 day rolling average. The longer averaging period would help reduce excessive ammonia slip conditions by allowing a slower SNCR system response time to reduce excessive urea feed conditions while still achieving the same degree of NOx emissions reductions. This would also result in lower facility specific ammonia slip limits based on optimization testing. The 30 day rolling average period is also consistent with current BART limit imposed on Saugus. Note: For either a 24 hour average or 30 day rolling average limit, the optimized SNCR control system set point will remain the same but response time can be slowed to avoid rapid increases in urea feed and over feed conditions. We also believe DEP's approach to implementing BART based NOx controls at Saugus would be a model for the alternative RACT analysis.

Response: EPA has indicated to MassDEP that RACT limits typically should be for an averaging period of no longer than 24 hours, as the purpose of RACT is to reduce emissions of NOx and volatile organic compounds that are precursors to the formation of ozone, which is of health concern on specific days. BART has different goals (seeking to reduce haze in national parks, forests, and monuments in stages by the year 2064) and therefore appropriately utilizes a longer 30-day averaging time. Therefore the NOx limits are being finalized as proposed, based on a 24-hour daily average.

Application for Source Specific Alternative NOx Emission Limit

Comment: A MWC facility applying for an alternative NOx RACT limit in the emission control plan application should not be required to evaluate the technology and economic feasibility of all the potentially applicable control technologies. Further there are no criteria for DEP to determine acceptability of alternative RACT analysis or schedule.

Response: If a facility chooses to apply for an alternative NOx RACT emission limit, it must conduct the same technological and economic feasibility evaluation that has been followed by other Massachusetts facilities over the years. The technological and economic feasibility criteria are the basis of RACT as stated in EPA's definition of RACT as: "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility" (44 FR 53762; September 17, 1979). The potentially applicable

control technologies have been added at 310 CMR 7.08(2)(k)2. based on the long-standing list of technologies at 310 CMR 7.19(2)(b).

Optimization Testing To Determine Ammonia Slip Limit

Comment: The Department is soliciting comments on whether to include a presumptive ammonia limit in 7.08(2) and allow each facility to choose between conducting ammonia optimization testing or complying with a presumptive ammonia limit. At this time it would be difficult to prescribe a specific presumptive limit given that facilities will need to meet a stricter NO_x limit between 150 and 185 ppm based on optimization of existing SNCR systems. As such the option for conducting ammonia optimization testing to provide a facility specific ammonia limit that coincides with final achievable RACT limit must be included in the final 7.08(2) amendments. Wheelabrator favors establishing a facility-specific ammonia limit based on optimization testing.

Response: MassDEP agrees with the commenter and is finalizing the regulation with a requirement to conduct ammonia optimization testing rather than specifying a presumptive limit.

Amendments to 7.08(2)(g) Compliance and Performance Testing Requirements

Comment: DEP has proposed amendments to allow the optional use of continuous emission monitoring systems (CEMs) for particulate, trace metals (cadmium and lead), mercury, hydrogen chloride and dioxins in lieu of the EPA performance test methods. Certainly the performance test results for MWCs over the last 12 years confirm that the current 7.08(2) continuous emission monitoring, parametric monitoring and periodic testing requirements have proven very effective in ensuring emissions are minimized and compliance is being continuously achieved. While the optional or voluntary use of these CEMs is consistent with EPA's May 2006 EG revisions, it must be noted that all of these optional CEMs have not been validated on modern MWCs with respect to long term accuracy, reliability, cost and ability to meet EPA performance specifications. Further there are no EPA performance specifications for hydrogen chloride, trace metals and dioxin CEMs for which to assess performance/accuracy of these optional CEMS. Importantly, as EPA acknowledged in the May 2006 EG revisions, the use of mercury and particulate CEMs would theoretically require EPA to revise these emission limits based on actual data collected using these CEMS. Additionally, as EPA further explained, since there were no particulate or mercury CEM data available to develop CEM based emission limits EPA just increased the averaging time (from a 3 test run average to 24 hours average) and then encouraged future potential users of such CEMs to notify EPA once data is collected to determine if an alternative emission limit is appropriate. This would be the case for use of any other optional CEMs as well. Given the above significant limitations and uncertainties, optional use of these CEMs has no advantage over current 7.08(2) compliance and performance testing requirements as [has] been successfully used over the last 12 years. At this time optional use of these CEMs is technologically or economically feasible notwithstanding that an MWC facility could actually being able to obtain EPA approval for alternative CEM based limits if subsequent data confirms that an alternative limit is warranted. Based on the above and in the interest of streamlining the 7.08(2) requirements, DEP should omit from the 7.08(2) the optional CEMS text from federal regulations at 40 CFR 60.58b.

Response: MassDEP is retaining the optional CEMS provisions in the regulations. As technology advances, EPA provides additional performance specifications (e.g., EPA proposed a hydrogen chloride CEMs performance specification on May 14, 2014, see 79 FR 27689), and MassDEP would like to facilitate the ability of MWC owners and operators to utilize the optional CEMS provisions, if they so choose.

C. US EPA Comments

Comment: We support MassDEP finalizing the proposed amendments that set more stringent emissions limits for MWCs than the federal standards. We encourage MassDEP to adopt the proposed amendments and submit them to EPA as a revision to the Massachusetts State Plan for MWCs.

Response: Thank you for your support, and we will submit the final amendments to EPA for approval into our State Plan for MWCs.

Comment: MassDEP's proposed amendment exempts large MWC units from 310 CMR 7.19, NO_x RACT, if the unit is subject to 310 CMR 7.08(2). Therefore, MassDEP should ensure that in its submittal to EPA, it specifically requests that the NO_x provisions in 7.08(2) are approved and made part of both the State Implementation Plan for NO_x and the State Plan for MWCs.

Response: When submitting the MWC regulations to EPA for approval, MassDEP will request that the NO_x provisions in 7.08(2) be included in the State Implementation Plan and the State Plan for MWCs.

Comment: MassDEP is proposing to add a new definition of NAAQS or federal Ambient Air Quality Standards to the definitions section in 310 CMR 7.00. The definition references standards in effect on December 14, 2012, the date that EPA signed the rulemaking notice and announced the new fine particle standards. However, since the standard was not published in the Federal Register until January 15, 2013 (78 FR 3086) and became effective on March 18, 2013, EPA recommends that MassDEP revise the NAAQS definition to reference March 18, 2013 to ensure the new fine particle standards are included.

Response: To address this issue, MassDEP promulgated a NAAQS definition in separate regulatory amendments on March 9, 2018.

D. Miscellaneous

MassDEP noticed that 310 CMR 7.08(2)(f)2.: *Table 1* unnecessarily includes provisions for "Mass Burn Refractory" MWCs. As there are no Massachusetts Mass Burn Refractory MWCs subject to 310 CMR 7.08(2)(f)2.: *Table 1*, we have deleted the Mass Burn Refractory provisions from 310 CMR 7.08(2)(f)2.: *Table 1*. This edit is parallel to the similar edit to 310 CMR 7.08(2)(f)3.: *Table 3* that we are finalizing as proposed.

In addition, MassDEP added a missing occurrence of the phrase "as last amended May 10, 2006" to 310 CMR 7.08(2)(h) 4.e.

MassDEP is finalizing the deletion of 310 CMR 7.27, 7.28 and 7.50 as proposed. MassDEP also proposed conforming amendments to 310 CMR 7.02, 7.29 and 7.00: Appendix A that added citations to 310 CMR 7.32. Those proposed conforming amendments have become obsolete due to separate regulatory amendments promulgated on March 9, 2018 that delete 310 CMR 7.32, add 310 CMR 7.34 and contain superseding amendments to 310 CMR 7.02, 7.29 and 7.00: Appendix A that reference 310 CMR 7.34.